

CLAIMS

We claim:

1. In a vehicle comprising a first device and a second device, an active
5 network communicatively coupling the first device and the second device, the active network comprising a core portion and a peripheral portion, the peripheral portion being coupled to the core portion, and the first device and the second device being coupled to the peripheral portion.
- 10 2. The vehicle of claim 1, wherein the active network comprises a packet data network.
- 15 3. The vehicle of claim 1, wherein the active network comprises a plurality of active network elements coupled by connection media, wherein the core portion comprises a core active network element and the peripheral portion comprises a peripheral active network element.
- 20 4. The vehicle of claim 1, wherein the active network comprises a plurality of active network elements coupled by connection media, wherein the core portion comprises a first active network element of the plurality of active network elements and a second active network element of the plurality of active network elements.
- 25 5. The vehicle of claim 4, wherein the connection media coupling the first active network element and the second active network element comprises a plurality of communication paths between the first and second active network elements.

6. The vehicle of claim 1, wherein at least one of the active network elements comprises a switch.

7. The vehicle of claim 1, wherein at least one of the active network elements
5 a router.

8. The vehicle of claim 1, wherein at least one of the active network elements
a bridge.

10 9. The vehicle of claim 1, wherein the peripheral portion comprises a first
active element of the plurality of active elements and a second active element of the
plurality of active elements.

15 10. The vehicle of claim 1, wherein the core portion has a first data rate
capability and the edge portion has a second data rate capability different than the first
data rate capability.

20 11. The vehicle of claim 1, wherein the core portion comprises a
communication network backbone structure.

25 12. An active network for a vehicle, the vehicle including a plurality of
devices, the active network comprising:
 a plurality of active network elements coupled by communication media
including a core having a core portion of the plurality of active network elements and
a peripheral portion having a peripheral portion of the plurality of active network

elements, wherein the core portion is coupled to active network elements of the core portion and active network elements of the peripheral portion and the peripheral portion is coupled to active network elements of the core portion and active network elements of the peripheral portion and to the plurality of devices.

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13. The active network of claim 13, wherein the active network is operable to establish a plurality of communication paths between a first device and a second device of the plurality of devices for communicating data between the first and second devices.

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14. The active network of claim 15, wherein the plurality of communication paths comprise exclusively the peripheral portion.

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15. The active network of claim 14, wherein the core portion has a first data rate capability and the peripheral portion has a second data rate capability different than the first data rate capability.

16. The active network of claim 11, wherein the core portion forms a network backbone structure.

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